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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,920	01/26/2004	Andreas Sibrai	DS03-005A	2954

7590 10/25/2006

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EXAMINER

RUTLAND WALLIS, MICHAEL

ART UNIT PAPER NUMBER

2835

DATE MAILED: 10/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/764,920

Applicant(s)

SIBRAI ET AL.

Examiner

Michael Rutland-Wallis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 17-19 and 27-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1, 19, 29 and 30 is/are allowed.
- 6) ☐ Claim(s) 2-15, 17, 18, 27 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>09/15/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

Applicant's previous submission on 02/25/2004 did not contain the 1449 submitted on 09/15/2006.

The information disclosure statement filed 09/15/2006 fails to comply with 37 CFR 1.97(c) because it lacks the fee set forth in 37 CFR 1.17(p). It has been placed in the application file, but the information referred to therein has not been considered.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees.

A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ

645 (Fed. Cir. 1985); *In re Van Omum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 14 and 17-18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 6, 9 of copending Application No. 10/764,914. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Claim 14 of the instant application and claim 1 of application 10/764,914 recite the same limitations with the exception of line 9 of 10/764,914 where the additional limitation "to connect a multiple of said capacitors in parallel" and line 14 of 10/764,914 "a translinear amplifiers" in the place of "an amplifier" in the instant application. It would have been obvious to one of ordinary skill in the art at the time of the invention to have the switching devices connect the capacitors in parallel as such is operation of the switching devices described in the instant application and to use a translinear amplifier

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in the place of the amplifier of the instant application in order to ensures linearity of differential output currents

Further claim 17 of the instant application and claim 6 of application 10/764,914 recite the same limitations with the exception "reference values" is found in the place of "threshold values" used in the instant application. It would have been obvious to one of ordinary skill in the art at the time of the invention to reference values in the place of threshold values in order to establish proper operational limits for the device.

Further claim 18 of the instant application and claim 9 of application 10/764,914 recite the same limitations with the exception of line 2 "a signal" is found in the place of "a tuning voltage" used in the instant application. It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the tuning voltage for a similar signal with the same characteristics in order to operate the switching stages.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-13, 27-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 2-13 and 27-28 have been amended to

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directly or indirectly depend from a non-existent claims, "claim 0" and "claim 1929" respectively.

Response to Arguments

Applicant's amendments to the specification and drawings are hereby entered. Applicant's amendments to the drawings and specification are fully responsive to the previous objection accordingly the objection is withdrawn.

Applicant's arguments, filed 09/15/2006, with respect to claims 1, 19 and 29 have been fully considered and are persuasive. The previous rejection has been withdrawn.

Applicant's arguments with respect to claims 2-14, 17-18 and 27-28 have been considered but are moot in view of the new ground of rejection.

Allowable Subject Matter

Claims 1, 15, 19, 29 and 30 are allowed. The following is an examiner's statement of reasons for allowance: Liu (U.S. Pat. No. 6,577,180) teaches a circuit to control the capacitance of a variable capacitor in a linear mode through a tuning voltage and to achieve a high Q-factor at the same time; comprising: a set of individual small capacitors (see capacitors in Fig. 3); a set of switching devices (transistors in Fig 3) to continually switch said capacitors connected in parallel; a means to linearly control (item

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50) the switching function for each of said set of continuous switching devices; means to generate (voltage supplied through resistor chain item 40) a set of controlling signals (see item 40 Fig. 3), directly depending on the tuning voltage input, one for each of the capacitor switching stages; means to generate (item 20) a set of threshold values, one for each of the capacitor switching stages; and means to (item 30) provide a tuning voltage, dedicated for the voltage controlled capacitance change. Liu does not teach or fairly suggest the capacitors are switched in a linear mode combined with the limitation an analog ramp-up/down operation as claimed. At least these further limitations are not taught or rendered obvious by the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. (US Pat No. 20040256917), (US Pat No. 20010020804), (US Pat No. 6882064), (US Pat No. 6285095), (US Pat No. 6437724), (US Pat No. 5949156), (US Pat No. 6184594), (US Pat No. 6013958), (US Pat No. 5949156) all teaches similar capacitance control systems which may be relevant to applicants invention.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRW

A handwritten signature in black ink, appearing to read 'A. Vortman', with a long horizontal stroke extending to the right.

**ANATOLY VORTMAN
PRIMARY EXAMINER**